

Remarks

Claims 1-28 are presented for reconsideration, with claims 1, 14, 21, 27, and 28 being the independent claims. Claims 1, 14, 15, 18-24, and 26-28 are amended to clarify the Applicants' techniques.

These changes are believed not to introduce any new matter, and their entry is respectfully requested.

In response to the Examiner's responses to Applicant's previously-filed arguments on pages 22-38 of the Final Office Action, Applicants traverse.

Based on the above amendments and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding rejections and that they be withdrawn.

Rejections under 35 U.S.C. § 101

On page 3 of the Office Action, the Examiner rejected claims 1-13 as being allegedly directed towards non-statutory subject matter. On page 3 of the Office Action, the Examiner acknowledges that claims 1-13 are directed to systems, but states that Applicants' specification "provides intrinsic evidence that these claims are directed towards software alone." Applicants disagree and respectfully traverse.

Applicants submit that the Examiner seems to have misunderstood embodiments in Applicants' specification and the systems recited in claims 1-13. Claims 1-13 are directed towards document security systems, not computer program products, computer readable media, or "software alone," and represent statutory subject matter. Paragraphs 11-20 and 36-47 of Applicants' specification provide support for the document security

systems recited in claims 1-13. Applicants submit that the Examiner has misapplied the guidelines in making 35 U.S.C. § 101 rejections of claims 1-13. The sections of the USPTO “Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility” (Official Gazette notice of 22 November 2005), Annex IV quoted on pages 2 and 3 of the Office Action address claims that recite a “computer-readable medium encoded with a computer program”, “nothing but physical characteristics of a form of energy”, “a signal encoded with functional descriptive material”, and “a signal.” Claims 1-13 recite document systems with an access manager module, not forms of energy, computer-readable media encoded with a computer program, or signals. Paragraphs 11-17 and 36-45 of the specification disclose document security *systems* as claimed in claims 1-13. Claim 1's document security system that restricts access to secured documents provides a “useful, concrete, and tangible result” as required by 35 U.S.C. § 101.

However, to expedite prosecution, Applicants have amended claim 1 herein to recite a document security system for restricting access to secured documents including an access manager module. Support for the amendment to claim 1 is found at least at paragraph 112 of the instant specification. Claims 2-13 depend upon claim 1. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw this rejection of claims 1-13.

Rejections under 35 U.S.C. § 102

On pages 4-10 of the Office Action, the Examiner rejected claims 1-9, 14-17, and 27 under 35 U.S.C. § 102(e) as being allegedly unpatentable in view of US Patent

Application 2004/0117371 to Bhide *et al* (20040117371 A1) (“Bhide”). Applicants traverse for the reasons stated below.

Anticipation under 35 U.S.C. § 102 requires showing the presence in a single reference disclosure of each and every element of the claimed invention, arranged as in the claim. See *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick*, 221 U.S.P.Q. 481, 485 (Fed. Cir. 1984).

Claims 1-13

With regard to the Examiner’s statement on pages 4 and 5 of the Office Action and the Examiner's response to Applicants' previously-submitted arguments on pages 24-26 of the Office Action, in which the Examiner continues to characterize Bhide as teaching or suggesting the document security system recited in claim 1, Applicants respectfully disagree with this characterization and traverse for the reasons stated below.

Bhide does not describe each and every element as set forth in claim 1. Claim 1 as amended recites a document security system with at least one process-driven security policy that includes a plurality of states and transition rules, wherein each of the states is associated with one or more access restrictions, and wherein the transition rules specify circumstances under which *a secured document is to transition from one state to another*. Claim 1 as amended herein further recites an access manager module that determines whether access to a *secured document* is permitted by a requestor based on the state and the corresponding access restrictions.

On pages 5 and 24 of the Office Action, the Examiner states that all of the above-recited document security system features in claim 1 are disclosed in paragraphs 3, 21,

23, 25, and 31 of Bhide. Applicants respectfully disagree. Although Bhide may disclose that “conditions can be defined on the *database state*, system information”, or “user-defined Boolean functions” that may be used to limit *database* access (Bhide, paragraph [0023], lns. 1-6), Bhide does not teach or disclose that transition *rules* are used to transition *secured documents* from one state to another, as recited in claim 1. Bhide does not transition a database or portions of a database from one state to another. Bhide is limited to granting database access requests to users and does not teach or suggest that the database or data residing in database records or tables transitions from one state to another. In contrast, the system recited in claim 1 includes “at least one process-driven security policy that includes a plurality of states and transition rules, wherein each of the states is associated with one or more access restrictions and wherein the transition rules specify circumstances under which a *secured document* is to transition from one state to another.”

On page 24 of the Office Action, the Examiner continues to maintain that Bhide's system to restrict database access discloses the document security system for restricting access to *secured documents* recited in claim 1. Applicants respectfully disagree.

Claim 1 recites secured documents transitioning from one state to another based upon process-driven security policy states with defined access restrictions and transition rules. In contrast, Bhide *infers database access* privileges for access requests when no explicit privileges exist (Bhide, paragraph [0009], lns. 1-3). Bhide is limited to inferring user insert, delete, modify, or read access to *portions of a database* or basing database insert, delete, modify, or read access upon events (Bhide, paragraph [0028], lns. 1-19). On page 24 of the Office Action, the Examiner indicates that Bhide's combination of

inference rules and condition evaluation to determine a level of database access teaches or suggest transitioning a secured document state based solely upon event occurrence, as recited in claim 1. Bhide lacks any teaching or suggestion of securing documents based upon process-driven security policy states having specified access restrictions and transition rules, as recited in claim 1. Applicants submit that combining condition evaluation and inference rules to authorize database access in Bhide is not analogous to restricting requestor access to a secured document when access is requested after determining whether access to the document is permitted based on a policy state associated with the document and the corresponding access restrictions thereof for a process-driven security policy, as recited in claim 1.

Moreover, Bhide's event-based *database* access is limited to insertion, deletion, modification, and reading of portions of a database (Bhide, paragraph [0028], lns. 1-6) and lacks claim 1's recited features of a process-driven file security system that determines access to *secured documents*.

The secured documents recited in claim 1 are not equivalent to the database recited in Bhide. Applicants are unable to find any teaching in Bhide of a document security system that restricts access to secured documents. In contrast, Bhide performs event-based access control of *databases* (paragraph [0018], lns. 1-4, paragraph [0028], lns. 1-6) by allowing users to gain one of only three *database* access privileges: read, write, or indirect read (Bhide, paragraph [0012], lns. 1-4).

On page 26 of the Office Action, the Examiner states that the functions of the above-recited access manager module of claim 1 is disclosed by Bhide in lines 3-10 of paragraph 31. Lines 3-10 of paragraph 31 of Bhide do not teach or disclose a document

security system with an access manager module that determines whether access to a secured document is permitted by a requestor based on the process-driven security policy's state and the corresponding access restrictions for the secured document, as recited in claim 1. The Examiner continues to characterize the combination of Bhide's "Execution Model" and "Access Validation model" as accomplishing the functions of claim 1's access manager module which determines secured document access based upon transition rules. Applicants disagree for the reasons stated below.

Even assuming for the sake of argument that the Examiner's interpretation is correct (which Applicants disagree with), Bhide's Access Validation model merely provides an end-user interface for accessing data in a database after database access has been inferred by the Execution Model (Bhide, paragraph [0031]). Database access via a user interface is not equivalent to claim 1's document security system that determines whether access to a *secured document* is permitted based upon a process-driven security policy's current state and corresponding access restrictions. Applicants submit that while Bhide may disclose inferring database access based upon conditions attached to database access policies (Bhide, paragraph [0031], Ins. 4-8 and Table 1), Bhide does not teach or suggest a document security system with an access manager module that determines a requestor's access to secured documents, as recited in claim 1.

Therefore, the applied reference does not anticipate claim 1. Also, at least based on their respective dependencies to claim 1, claims 2-13 should be found allowable, as well as for their additional respective distinguishing features. Dependent claims 2-13, which depend upon independent claim 1, are allowable for at least being dependent from

allowable independent claim 1, in addition to their own respective distinguishing features. See *In Re Fine*, 837 F.2d 1071 (Fed. Cir. 1988) and M.P.E.P. § 2143.03.

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejections of these claims, and find them allowable over the applied reference.

Claims 14-20

Regarding the Examiner's statement on pages 8 and 9 of the Office Action and the Examiner's response to Applicants' previously-submitted arguments on pages 27-29 of the Office Action, in which the Examiner continues to characterize Bhide as teaching or suggesting the document security method recited in claim 14, Applicants disagree with this characterization and traverse for the reasons stated below.

Bhide does not describe each and every element as set forth in claims 14-20. For example, claim 14 recites a method for transitioning a secured document through a security-policy state machine having a plurality of states. Claim 14 further recites that the method includes receiving an event, determining whether the event causes a *state transition for the secured document from a former state to a subsequent state*, and automatically transitioning from the former state to the subsequent state of the security-policy state machine upon determination that the event causes the state transition.

On page 27 of the Office Action, the Examiner maintains that Bhide discloses the above-recited features of claim 14 in paragraphs 3, 18, 21, and 24. Bhide's condition evaluation is used to authorize database access (Bhide, paragraph [0026] and Table 1) does not teach or suggest transitioning secured documents from a former state to a

subsequent state, as recited in claim 14. Bhide lacks any teaching of transitioning a secured document through a security policy state machine, as recited in claim 14. As argued above, Bhide is limited to controlling user access to databases and does not disclose or suggest changing states of secured documents. While Bhide may disclose that conditions can trigger enforcement of database access control privileges (Bhide, paragraph [0021], Ins. 1-5 and Table 1), Bhide does not teach or suggest changing the security state of a secured document based on event occurrence, as recited in claim 14. In contrast to changing secured document states, Bhide merely alters database access rules (Bhide, paragraph [0025]). In contrast to the above-recited document transitioning of claim 14, Bhide's access control actions are limited to enabling, disabling, modifying, or defining database access rights when events occur and associated conditions evaluate to true (Bhide, paragraph [0025]). Altering a database access rights is not equivalent to transitioning a secured document through a security policy state machine, as recited in claim 14.

Further, Bhide's systems and methods do not automatically transition a secured document's state from a former state to a subsequent state in a security-policy state machine when an event causes a state transition, as recited in claim 14. Bhide infers database access rights based on a *combination* of events and conditions (Bhide, paragraphs [0025-0026] and Table 1). On page 27 of the Office Action, the Examiner seems to indicate that Bhide's combining inferences and conditions to determine a level of database access teaches or suggest transitioning a secured document state based solely upon an event, as recited in claim 14. Claim 14's method transitions a secured document's state from a former state to a subsequent when an event causes a state

transition. In contrast, Bhide applies rules to data related to database access control, user hierarchy, and user profiles (Bhide, paragraph [0024], lns. 1-3 and Table 1). Bhide's database access control rules are executed or enforced only when associated conditions are true (Bhide, paragraph [0024], lns. 4-6 and Table 1). Moreover, Bhide does not automatically transition a document's security state based on events, as recited in claim 14.

Therefore, the applied reference does not anticipate claim 14. Also, at least based on their respective dependencies to claim 14, claims 15-20 should be found allowable, as well as for their additional respective distinguishing features. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejections of these claims, and find them allowable over the applied reference.

Claim 27

With regard to the Examiner's statement on page 4 of the Office Action and the Examiner's response to Applicants' previous arguments on pages 29-30 of the Office Action, in which the Examiner continues to characterize Bhide as teaching or suggesting the computer readable medium recited in claim 27, Applicants disagree with this characterization and traverse for the reasons stated below.

Claim 27 as amended herein recites a combination of features that are not found in Bhide. Claim 27 recites a computer readable storage medium that includes computer program code for transitioning secured documents through a security-policy state machine. Claim 27 further recites that the computer readable storage medium includes computer code, which when executed by a computer, causes the computer to detect

occurrence of an event and determine whether the event causes a state transition for a secured document from a former state to a subsequent state of the security-policy state machine. The computer readable storage medium recited in claim 27 also includes computer code that, when executed by a computer, automatically transitions from a former state to a subsequent state of the security-policy state machine upon determining that the event causes the state transition.

On pages 29 and 30 of the Office Action, the Examiner maintains that Bhide discloses all of the above-recited features of claim 27 under the same rationale used to reject claim 14. While Bhide may disclose a computer program product that executes event-based database access control and infers of database access rights (Bhide, paragraph [0018], lns. 1-4), Bhide does not teach or suggest a computer readable medium with program code for transitioning secured documents through a security-policy state machine, as recited in claim 27. Bhide does not teach or suggest a computer readable storage medium with computer code that *automatically* transitions a secured document from a former security state to a subsequent state in a security-policy state machine, as recited in claim 27.

Claim 27 recites similar features as claim 14. Thus, for at least the reasons stated above, Applicants respectfully submit that claim 27 is patentable over Bhide, and request that the rejection of claim 27 be reconsidered and withdrawn. As argued above, Bhide discloses event-based access control for databases (Bhide, paragraph[0018], lns. 1-4, paragraph [0028], lns. 1-6) and is limited to allowing users to gain read, write, or indirect read access to portions of a database (Bhide, paragraph [0012], lns. 1-4).

Therefore, Bhide does not anticipate claim 27. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of this claim, and find it allowable over the applied reference.

Rejections under 35 U.S.C. § 103

On page 11 of the Office Action, claim 10 is rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Bhide in view of US Patent Application 2003/0217333 to Smith *et al* (US 2003/0217333 A1) (“Smith”), and claims 11-13 and 18-20 are rejected in view of Bhide and in further view of US patent 6,341,164 to Dilkie (US 6,341,164 B1) (“Dilkie”). On page 17 of the Office Action, claims 21-26 are rejected as allegedly being unpatentable in view of Bhide and in further view of US patent 6,941,472 to Moriconi *et al* (US 6,941,472 B2) (“Moriconi”) and in further view of US Patent Application 2004/0098580 to DeTreville (US 2004/0098580 A1) (“DeTreville”). On page 22 of the Office Action, claim 28 is rejected under the same rationale used to reject claim 21.

Applicants respectfully traverse these rejections and request that these rejections be withdrawn and the claims be passed to allowance.

Claims 10-13 and 18-20

Claims 10-13 depend on independent claim 1. As argued above, claim 1 is allowable over Bhide. Also, at least based on their respective dependencies to claim 1, claims 10-13 should be found allowable, as well as for their additional respective distinguishing features. Accordingly, Applicants respectfully request that the Examiner

reconsider and withdraw the rejections of these claims, and find them allowable over the applied reference.

Claims 18-20 depend on independent claim 14. As discussed above, claim 14 is allowable over the applied reference. Also, at least based on their respective dependencies to claim 14, claims 18-20 should be found allowable, as well as for their additional respective distinguishing features. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejections of these claims, and find them allowable over the applied reference.

Claims 21-26

With regard to the Examiner's statement on pages 17 of the Office Action and the Examiner's response to Applicants' previously-submitted arguments on pages 36-38 of the Office Action, in which the Examiner continues to characterize the allegedly obvious combination of Bhide, Moriconi, and DeTreville as teaching or suggesting the document security method recited in claim 21, Applicants disagree with this characterization and traverse for the reasons stated below.

Applicants submit that the Examiner has misconstrued Applicant's previously-submitted arguments regarding claim 21. With regard to the Examiner's statements on pages 37 and 38 that the Applicants' previous arguments attacked the applied references individually, Applicants submit that neither Bhide, Moriconi, nor DeTreville, alone or in combination, teach or suggest all of the recited elements of claim 21.

On pages 17 and of the Office Action, the Examiner indicated that claims 21-26 are unpatentable in view of Bhide and in further view Moriconi and in further view of

DeTreville. Claim 21 recites a combination of features that are not found in the applied references. Claim 21 as amended herein recites a method for imposing access restrictions on electronic documents comprising providing at least one process-driven security policy at a server computer, wherein the process-driven security policy is associated with a plurality of states, and wherein each of the states has distinct access restrictions. Claim 21 as amended recites that the method for imposing access restrictions on electronic documents further comprises: providing a reference to the process-driven security policy to a client computer, the reference referring to the process-driven security policy resident on the server computer; associating the reference to an electronic document; transitioning the process-driven security policy from one state to a current state; and subsequently determining at the server computer whether a requestor is permitted to access the electronic document, the access being based on a current state of the process-driven security policy, the current state being informed to the server computer by sending the reference to the server computer

On page 19 of the Office Action, the Examiner concedes that Bhide does not teach or suggest providing a reference to a process-driven security policy at a client machine, the reference referring to the process-driven security policy residing on the server machine, and associating the reference with an electronic document, as recited in claim 21.

These deficiencies of Bhide are not cured by Moriconi. While Moriconi may disclose a “policy manager” that allows users to add and edit policy rules of a centrally-managed, global security policy (Moriconi, col. 8, lns. 65-67, col. 9, lns. 32-34), Moriconi does not teach or suggest providing a reference to a process-driven security

policy at a client computer, wherein the reference refers to the process-driven security policy residing on a server computer, and subsequently associating the reference with an electronic document, as recited in claim 21. Although Moriconi may disclose a policy manager on a server that manages and distributes a global security policy to clients (Moriconi, col. 5, lns. 19-26), Moriconi does not teach or suggest providing *references* to client computers for a process-driven security policy with a plurality of states, as recited in claim 21. Moriconi's *global* security policy is distributed from a server to clients (Moriconi, col. 3, lns. 56-61, col. 5, lns. 21-23), but Moriconi does not teach or suggest transitioning a security policy from one state to a current state, as recited in claim 21. Moriconi does not teach or suggest a process-driven security policy or transitioning a security policy from one state to a current state, as recited in claim 21.

On page 19 of the Office Action, the Examiner concedes that the “combination of Bhide and Moriconi does not teach that the current state being informed to the server computer by sending the reference to the server.” The deficiencies of the allegedly obvious Bhide and Moriconi combination are not cured by DeTreville. DeTreville does not teach or suggest that a client computer informs a server computer of a process-driven security policy state with distinct access restrictions, as recited in claim 21. While DeTreville may disclose a system for license processing with an access control module that requests current license state information from a state server (DeTreville, paragraph [0020], lns. 1-3, paragraph [0024], lns. 1-4), DeTreville does not teach or suggest that a server is informed of the current state of a process-driven security policy by sending the reference to the server, as recited in claim 21. In contrast to claim 21's method that transitions from states of a process-driven security policy, DeTreville's license states are

external to licenses and do not change or transition the licenses (DeTreville, paragraph [0006], lns. 1-4, paragraph [0007], lns. 5-8). Changes in license states in DeTreville do not result in altered licenses.

Further, licenses in DeTreville are limited to controlling how many times or for how much time a resource can be accessed (DeTreville, paragraph [0004], lns. 1-6, paragraph [0020], lns. 9-12, paragraph [0024], lns. 12-17), and do not impose access restrictions on electronic documents by providing at least one process-driven security policy at a server computer, wherein the process-driven security policy has a plurality of states associated with it, and wherein each of the states has distinct access restrictions, as recited in claim 21. In contrast to claim 21's process-driven policies, DeTreville's license states are merely counters that are incremented or decremented based on how many times or for how long a given resource is used or accessed (DeTreville, paragraph [0025], lns. 7-9, paragraph [0027], lns. 1-4, paragraph [0037], lns. 15-19). DeTreville does not teach or suggest that a server is informed of a transitioned document security policy by a client, as recited in claim 21.

Moreover, the Examiner's piecemeal assembly of parts of Bhide, Moriconi, and DeTreville to cure the deficiencies in Bhide destroys the teaching of these references by making the systems/methods of operation unsatisfactory for their intended purposes and/or changing the systems/principles of operation. See M.P.E.P § 2143.01(V) and (VI). As Bhide infers access privileges for access requests when no explicit privileges exist (Bhide, paragraph [0009], lns. 1-3), adding Bhide's privilege *inference* to Moriconi's *global* policy that *specifies* user access privileges for securable components (Moriconi, col. 3, lns. 62-63) would change Moriconi's principle of operation. Similarly,

as Bhide allows access rules to be inferred (Bhide, paragraph [0009], lns. 1-3) adding Moriconi's system with a global security policy specifying access privileges (Moriconi, col. 3, lns. 57-59) would change Bhide's principle of operation. DeTreville's license process system is not analogous to Bhide's database access privileges or Moriconi's system for managing computer system security requirements.

Therefore, because none of the applied references, alone or in combination, teach or suggest all of the recited claim elements of independent claim 21 for at least the reasons herein, a *prima facie* case of obviousness has not been established. Accordingly, Applicants respectfully request this rejection of claim 21 be removed and that this claim be passed to allowance. Also, at least based on their respective dependencies to claim 21, claims 22-26 should be found allowable, as well as for their additional respective distinguishing features. Therefore, the applied references do not anticipate claims 21-26. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejections of these claims, and find them allowable over the applied references.

None of the applied references individually anticipate claim 21 and they cannot be used in combination to establish a *prima facie* case of obviousness. Therefore, the applied references do not anticipate claim 21.

Dependent claims 22-26, which depend upon independent claim 21, are allowable for at least being dependent from allowable independent claim 21, in addition to their own respective distinguishing features. See *In Re Fine*, 837 F.2d 1071 (Fed. Cir. 1988) and M.P.E.P. § 2143.03.

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of these claims, and find them allowable over the applied references.

Claim 28

Claim 28 as amended herein recites a combination of features that are not found in the applied references. Claim 28 recites a computer readable storage medium comprising computer program code, which when executed by a computer, causes the computer to provide at least one process-driven security policy at a server machine, wherein the process-driven security policy has a plurality of states associated therewith, and wherein each of the states has distinct access restrictions. Claim 28 further recites that the computer readable storage medium comprises computer code that causes a computer to: provide a reference to the process-driven security policy at a client machine, the reference referring to the process-driven security policy resident on the server machine; associate the reference to an electronic document; transform the process-driven security policy from one state to a current state; and determine at the server computer whether a requestor is permitted to access the electronic document, the access being based on a current state of the process-driven security policy, the current state being informed to the server computer by sending the reference to the server computer.

On page 22 of the Office Action, the Examiner states that claim 28 is rejected under the same rationale used to reject claim 21.

As noted by the Examiner on page 22 of the Office Action, claim 28 recites similar features as claim 21. Thus, for at least the reasons stated above, Applicants

respectfully submit that claim 28 is patentable over the applied references, and request that the rejection of claim 28 be reconsidered and withdrawn. Therefore, none of the applied references alone or in the allegedly obvious combination anticipate claim 28. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of this claim, and find it allowable over the applied references.

Other Matters

The Examiner is thanked for indication on page 2 of the Office Action that the Applicants' previously submitted replacement sheet for FIG. 3 is acceptable.

The Examiner is also thanked for indication on page 2 of the Office Action that the Applicants' previously amended claim 17 overcame the 37 C.F.R. § 1.75(a) objection to that. The Examiner is thanked for the indication on page 2 of the Office Action that the Applicants' previously amended claims 27 and 28 overcame the 35 U.S.C. § 101 rejections of those claims.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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